INTERNATIONAL MARITIME
ORGANIZATION

COM 37/17
20 August 1991
Original: ENGLISH

IMO

SUB-COMMITTEE ON
RADIOCOMMUNICATIONS -
37th session
Agenda item 17

REPORT TO THE MARITIME SAFETY COMMITTEE

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LIST OF ANNEXES

1 GENERAL - ADOPTION OF THE AGENDA

1.1 The Sub-Committee on Radiocommunications held its thirty-seventh session from 8 to 12 July 1991 at the Headquarters of the Organization under the Chairmanship of Mr. R. McIntyre (United States). The Vice-Chairman, Commander Ph. Pitaoulis (Greece), was also present.

1.2 The session was attended by representatives from the following countries:

ARGENTINA
AUSTRALIA
BAHRAIN
BAHAMAS
BELGIUM
BRAZIL
CANADA
CHILE
CHINA
CUBA
CYPRUS
DENMARK
FINLAND
FRANCE
GERMANY
GREECE
ICELAND
INDIA
INDONESIA
IRAN, ISLAMIC REPUBLIC OF
IRELAND
ISRAEL
ITALY
JAPAN
LIBERIA
MALAYSIA
MALTA
MEXICO
NETHERLANDS
NORWAY
PANAMA
POLAND
PORTUGAL
REPUBLIC OF KOREA
ROMANIA
SINGAPORE
SPAIN
SWEDEN
THAILAND
TURKEY
USSR
UNITED ARAB EMIRATES
UNITED KINGDOM
UNITED STATES
URUGUAY

and by the following Associate Member of IMO:

HONG KONG

1.3 The following United Nations specialized agencies and intergovernmental and non-governmental organizations were also represented:

INTERNATIONAL TELECOMMUNICATION UNION (ITU)
WORLD METEOROLOGICAL ORGANIZATION (WMO)
INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)
INTERNATIONAL MARITIME SATELLITE ORGANIZATION (INMARSAT)
COSPAS-SARSAT
INTERNATIONAL COMMITTEE OF THE RED CROSS (ICRC)
INTERNATIONAL CHAMBER OF SHIPPING (ICS)
INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)
INTERNATIONAL CONFEDERATION OF FREE TRADE UNIONS (ICFTU)
INTERNATIONAL ASSOCIATION OF LIGHTHOUSE AUTHORITIES (IALA)
INTERNATIONAL RADIO-MARITIME COMMITTEE (CIRM)
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)
OIL INDUSTRY INTERNATIONAL EXPLORATION AND PRODUCTION FORUM (E & P FORUM)
INTERNATIONAL LIFEBOAT FEDERATION (ILF)

1.4 In welcoming the participants, the Secretary-General stressed the importance of the session being the last one before the Amendments to the 1988 SOLAS Convention concerning radiocommunications for the GMDSS enter into force on 1 February 1992 and also the last opportunity for the Sub-Committee to finalize any related outstanding matters. The Secretary-General identified as important items on the Sub-Committee's agenda the clarification of SOLAS GMDSS provisions, development of the GMDSS Master Plan, promulgation of maritime safety information, performance standards for shipborne radio equipment, ITU World Administrative Radio Conference Matters (WARC-92) and review of chapter 13 of the Code of Safety for Dynamically Supported Craft. He also referred to the instructions of MSC 59 to all sub-committees on the question of existing ship safety standards (the "grandfather clause").

1.5 The agenda of the session, including a list of documents submitted under each agenda item, is given in annex 1.

2 DECISIONS OF OTHER IMO BODIES

2.1 The Sub-Committee was informed of decisions and comments pertaining to its work taken by the twenty-second session of the Sub-Committee on Standards of Training and Watchkeeping (STW) (COM 37/2), the twenty-second session of the Sub-Committee on Life-Saving, Search and Rescue (LSR) (COM 37/2/1), the thirty-fourth session of the Sub-Committee on Ship Design and Equipment (DE) (COM 37/2/2) and the Committee at its fifty-ninth session (COM 37/2/3) and took action as reported under the relevant sections of this report.

2.2 The Sub-Committee noted that, at MSC 59, the expanded Maritime Safety Committee had recalled its decision that the footnotes referring to relevant recommendations contained in the Annex to the 1974 SOLAS Convention did not form part of the Convention (COM 37/2/3, section 7) and instructed the Secretariat to omit such footnotes from the authentic texts and certified copies thereof circulated in respect of present and any future amendments but agreed that such footnotes should continue to be included in all documents and sales publications. The expanded Committee had also reaffirmed its invitation to the Secretary-General to amend or add footnotes in SOLAS publications whenever appropriate.

2.3 The Sub-Committee noted the Committee's decisions (COM 37/2/3, paragraph 8.10) concerning submission of documents, in particular that for all meetings of its subsidiary bodies which take place after 1 October 1991, documents should be received by the Secretariat as follows:

.1 bulky documents (more than six pages of text) which require action or decision should be received twelve weeks before the meeting;

.2 all other documents should be received at least seven weeks before the meeting.

3 MARITIME DISTRESS AND SAFETY SYSTEM

Promoting the early introduction of NAVTEX, satellite EPIRBs and SES elements of the GMDSS

3.1 The Sub-Committee noted information submitted by Argentina (COM 37/3/1) on functional tests which had been carried out by the Argentine Coast Guard

to compare alerting and position-fixing using 406 MHz satellite EPIRBs and 121.5 MHz and 156.525 MHz (channel 70) EPIRBs. For comparison of homing functions, both surface vessels and aircraft had been used. The 406 MHz satellite EPIRB had provided positional accuracy of between 1/2 and 1 1/2 nm while homing by aircraft had shown a better homing range on channel 70 than on 121.5 MHz.

Ninth North Sea/Baltic DSC Meeting

3.2 The Sub-Committee noted (COM 37/INF.3) the report of the ninth North Sea/Baltic DSC Meeting which was held in Hamburg from 5 to 7 February 1991 to consider various matters with respect to the implementation of the digital selective calling system as an integral part of the GMDSS infrastructure in the region.

3.3 In its status report the Meeting stated that most of the North Sea/Baltic countries intend to fit their coast stations with DSC equipment, at least for distress and safety purposes, not later than 1 February 1992.

3.4 The Sub-Committee agreed with Denmark's conclusion presented to the Meeting that a dedicated receiver/decoder was needed for DSC distress purposes and noted that this was a requirement included in the VHF, HF and MF/HF radio installation performance standards.

3.5 The Sub-Committee noted instructions for ships and coast stations on operational procedures for DSC communications on MF and VHF developed by the Meeting and was of the opinion that this could be useful information for the STW Sub-Committee.

3.6 The Sub-Committee noted the current misuse of channel 70 and the action taken to prevent its further misuse, i.e. technical means to prevent radiotelephony transmissions on channel 70 for new equipment. The Sub-Committee urged Administrations to intensify efforts to clear channel 70 from unauthorized transmissions.

3.7 The Sub-Committee invited Members to consider the operational procedures given in COM 37/INF.3 and to submit comments and proposals thereon to the Sub-Committee's thirty-eighth session with the aim of bringing appropriate parts of this procedure to the attention of the STW Sub-Committee.

Ship/aircraft communications

3.8 As requested by the LSR Sub-Committee (COM 37/2/1, paragraph 2.6), the Sub-Committee considered whether the procedure for establishing ship/aircraft communications in the case of aircraft in distress over an ocean area (COM 36/WP.5) would also be applicable for use in the case of a ship in distress or, if required, for on-scene communications. The Sub-Committee, agreeing that the procedure would be similar for all ship/aircraft communications, prepared the revised text given in COM 37/WP.7 and invited the LSR Sub-Committee to include it in the IMOSAR and MERSAR Manuals.

3.9 The delegation of Australia informed the Sub-Committee that Australia had introduced early INMARSAT-C distress and safety and SafetyNET services which had commenced in January 1991 through the INMARSAT Pacific Ocean Satellite and, in May 1991, through the Indian Ocean Satellite from the Perth Land Earth station (LES). They also informed that fifty Australian ships had been fitted with GMDSSS equipment.

Funding arrangements for GMDSS communications

3.10 The Sub-Committee noted (COM 37/INF.2) the conclusion of CCITT Study Group III, Working Party 5, that there is no lack of harmonization between the provisions of CCITT Recommendations D.40 and D.90 given that Recommendation D.40 covered the principle for landline charges and D.90 the principles for land station charges applicable to meteorological telegrams.

3.11 The Sub-Committee was informed of the content of a WMO letter informing IMO it had agreed with the explanations given in COM 37/INF.2 with the exception of the statement that neither recommendation D.40 (former F.1) nor D.90 have been changed in relation to charges for meteorological telegrams. The actual text in Recommendation F.1, when transferred into the revised D.40, was changed despite the strong insistence of the WMO representative at the time that the text should be transferred without change. While it may be that this change may have no effect on the policy of Administrations with regard to charging for meteorological telegrams, it is also possible that some Administrations may choose to increase landline charges on the basis that a 50% reduction is now no longer recommended by CCITT. WMO hopes this will not be the case as it would have a deleterious effect on collection of ships' weather reports and consequently on the quality of meteorological services. WMO had therefore invited its Members to consult with their telecommunications authorities with a view to the retention of the current procedures for charging for OBS messages.

Review of digital selective calling (DSC) for all ships and HF narrow-band direct-printing (NBDP)

3.12 Taking into account the comments of Norway (COM 37/3/7), the Sub-Committee recalled that the Committee (MSC 58/25, paragraph 9.2) had endorsed its opinion that the use of HF NBDP cannot be accepted as an alternative to HF DSC in the GMDSS.

3.13 The Sub-Committee recalled that at its thirty-fifth session (COM 35/17, paragraph 3.5.9) it had reviewed Assembly resolution A.606(15) regarding the DSC system and was of the opinion that the DSC system had, through trials and pre-operational operations, demonstrated its effectiveness and that no alternative system with the same facilities was available.

3.14 The Sub-Committee agreed there was no reason to revise the above opinion and concluded no further action was required with respect to the requirement of the 1988 SOLAS Amendments that all ships should carry DSC equipment.

3.15 In accordance with resolution A.606(15), the Sub-Committee also reviewed the requirement for HF NBDP for ships of 300 gross tonnage and over but less than 1,600 gross tonnage in sea areas A3 and/or A4 and was of the opinion that the HF NBDP system has, through normal operations for a long period of time, demonstrated its effectiveness. The only viable alternative would be telex through the INMARSAT system. However, the Sub-Committee, taking into account that the SOLAS carriage requirements permit shipowners to choose either HF NBDP or INMARSAT, agreed there was no reason to modify the carriage requirements.

3.16 The Committee was invited to endorse the opinions given in paragraphs 3.14 and 3.15 and to delete the item "Review of digital selective

calling for all ships and HF narrow-band direct-printing" from the Sub-Committee's work programme.

Application of SOLAS requirements to existing ships

3.17 The Sub-Committee was of the opinion that the 1988 SOLAS Amendments had been carefully considered by the Sub-Committee, the Committee and the 1988 Conference and, as existing ships are allowed a period of grace from 1992 to 1999 for implementing the GMDSS SOLAS requirements, application would apply equally to existing ships within a reasonable period of time. No further action by the Committee would therefore appear necessary to upgrade existing ship radio standards. The Committee was invited to note this opinion.

3.18 The Sub-Committee also considered matters in the 1988 Amendments to the 1974 SOLAS Convention concerning radiocommunications for the GMDSS, which had been left "to the discretion of the Administration" and noted such "discretion" is limited by dates when full compliance with GMDSS requirements is obligatory or by guidance in the form of appropriate Assembly resolutions on how such "discretion" should be applied. The Sub-Committee was, therefore, of the opinion that such "discretion" was essential and, at this stage, no further action on the part of the Organization was necessary until experience has been gained in the satisfactory application or otherwise of such "discretion" by the Administrations concerned. The Committee was invited to note this opinion.

3.19 The Sub-Committee also noted the instruction of the Committee that, when preparing amendments to conventions, codes and recommendations, it should thoroughly discuss their application to existing ships so as to ensure they meet a satisfactory safety standard.

Proposed amendments to resolution A.494(XII)

3.20 The Netherlands (COM 37/3/6) informed the Sub-Committee that at the time resolution A.494(XII) - Revised interim tonnage measurement for certain ships, was adopted, it had been considered that GMDSS requirements for new ships would be applicable before or on 18 July 1994; however, this date has in the meantime been set at 1 February 1995 (regulation IV/1.6). The result is that there now exists a time-gap between the dates of applicability of the 1988 SOLAS Amendments for the GMDSS for new ships and the terminal date of the Revised Interim Tonnage Scheme, which makes it possible that a ship, the keel of which is laid after 18 July 1994 and which wishes to adhere to the existing regulations concerning the radio installation, will have to be equipped with a radiotelegraph station instead of a radiotelephone station and will, subsequently, have to carry a radio officer. The Netherlands therefore proposed to amend paragraph 3(a) of resolution A.494(XII).

3.21 The Sub-Committee, while recognizing the concern of the Netherlands, was of the opinion that other options were available to shipowners including early introduction of GMDSS requirements on board ships built after 18 July 1994 and, in view of the very short interval of time between 18 July 1994 and 1 February 1995 and the very little advantage which would be gained, agreed it was not necessary to amend resolution A.494(XII)

Replies to questionnaire on casualties

3.22 The Sub-Committee noted a report form provided by Denmark (COM 37/3/3), which has been approved by Telecom Inspectorate Denmark (Telestyrelsen) for reporting the lack of or insufficient radiocommunications in connection with distress or other safety hazards at sea. Such reports should be submitted directly to Telestyrelsen for processing and evaluation.

3.23 The Sub-Committee further noted a summary report of replies to the questionnaire on casualties (COM 37/3/8), in response to COM/Circ.70/Rev.1, which was presented in tabular form.

3.24 The Sub-Committee noted the Committee's request (COM 37/2/3, section 6) to all sub-committees to advise the Committee at its sixtieth session on the exact type of statistical information which can be of assistance to their work.

3.25 In this regard, the Sub-Committee expressed the opinion that, provided Members respond to COM/Circ.70/Rev.1, it would be provided with sufficient information to enable it to evaluate the effectiveness of the GMDSS and therefore no further statistical information was required at this stage. The Committee was invited to note this opinion.

Reserve sources of energy

3.26 The Sub-Committee considered submissions by the Netherlands (COM 36/3/13) and Portugal (COM 37/3) on the clarification of the SOLAS GMDSS requirements for the reserve source of energy on cargo ships of 300 to 500 tons gross tonnage (regulation IV/13) and noted that:

.1 regulation IV/13.2 contains the requirements for the reserve source of electrical energy for the radio installations on cargo ships of 300 tons gross tonnage and upwards constructed on or after 1 February 1995;

.2 regulation II-1/43.2.3 contains the requirements for the emergency source of electrical power for the radio installation on cargo ships of 500 tons gross tonnage and upwards constructed on or after 1 February 1995;

.3 as a consequence of the requirements of regulation IV/13.2 being applicable to cargo ships of 300 tons gross tonnage and upwards and the requirements of regulation II-1/43 being applicable to cargo ships of 500 tons gross tonnage and upwards, the requirements are inconsistent;

.4 therefore, cargo ships less than 500 tons gross tonnage are not required to have emergency source of energy under regulation II-1/43; and

.5 regulation IV/13.2.1 limits the capacity of the reserve source of energy for all cargo ships of 300 tons gross tonnage and upwards, to one hour but does not recognize that ships of between 300 and 500 tons gross tonnage may not be provided with an emergency source of energy.

3.27 In order to resolve the above problem, the Sub-Committee recommended the following amendments to regulations IV/13.2.1 to IV/13.2.3:

".1 one hour on ships provided with an emergency source of electrical power, if such source of power complies fully with all relevant provisions of regulation II-1/42 or 43, including the supply of such power to the radio installations; and

.2 six hours on ships not provided with an emergency source of electrical power complying fully with all relevant provisions of regulation II-1/42 or 43, including the supply of such power to the radio installations."

3.28 The Sub-Committee also noted that an editorial error appears in regulation IV/14.2 and the text should be amended as follows:

"Equipment installed prior to the dates of application prescribed by regulation 1..."

3.29 The Sub-Committee was of the opinion that these were unintentional oversights when the Organization was preparing and adopting the 1988 Amendments to the 1974 SOLAS Convention for the GMDSS, which should be rectified through an appropriate amendment to the Convention. The Sub-Committee, therefore, invited the Committee to approve the above proposed amendments at its sixtieth session with a view to their adoption at its sixty-first session.

3.30 Pending adoption of the proposed amendments, the Sub-Committee invited the Committee to recommend, by means of an appropriate circular, that Member Governments require cargo ships between 300 and 500 tons gross tonnage, to which the amendments given in paragraph 3.27 would apply, to be provided with a reserve source of energy capable of providing for operation of equipment, required by regulation IV/13.2, for a period of at least six hours.

Clarification of SOLAS GMDSS provisions

3.31 The Netherlands (COM 37/3/5), considering that only rechargeable accumulator batteries can be used as a reserve source of power but being in doubt as to the interpretation of this, invited the Sub-Committee to consider whether other sources of power could be accepted as equivalent to rechargeable accumulator batteries for the reserve source of power and proposed the following clarification of regulation IV/13.6:

"The reserve source of energy should consist of an accumulator battery or batteries being charged by the ship's main and/or emergency power source. As the use of generators cannot guarantee an uninterrupted supply of electrical power to navigational equipment, as required by regulation IV/13.8, they cannot be considered equivalent to accumulator batteries".

3.32 The Sub-Committee, being of the opinion that a source of energy other than accumulator batteries could be used as a reserve source of energy, agreed that regulation IV/13 need not be clarified.

3.33 Taking into account proposed clarifications and interpretations submitted by Germany (COM 37/3/4) and CIRM (COM 36/INF.10), the Sub-Committee agreed the clarifications of certain provisions of chapter IV of the 1988 Amendments to the 1974 SOLAS Convention concerning radiocommunications for the GMDSS, given in annex 2, which the Committee is requested to consider and note for circulation to Member Governments and to recommend that, where appropriate, equipment which has already been approved by an Administration should not be required to be replaced because of these clarifications.

3.34 Pending consideration of the proposed clarifications by the Committee, the Sub-Committee requested the Secretariat to bring annex 2 and paragraph 3.33 to the attention of Member Governments by means of COM/Circ.105 as advance information and for appropriate action.

3.35 In considering the proposed clarification by Germany (COM 37/3/4), the Sub-Committee noted the following:

.1 the SOLAS GMDSS provisions do not require the explosion-proof design for mobile radio installations (COM 37/3/4, annex, paragraph 15);

.2 under the present operational conditions, INMARSAT-A SES equipment cannot meet the watch requirements prescribed by regulation IV/10.1.1.3 without an additional EGC receiver (COM 37/3/4, annex, paragraph 6);

.3 design and installation guidelines for INMARSAT-A SES equipment have not been circulated in the form of a COM circular whilst those for INMARSAT-C and EGC reception equipment are circulated by COM/Circ.103 (COM 37/3/4, annex, paragraph 10).

3.36 The Sub-Committee was of the opinion that no clarification could help resolve the inaccuracies contained in the conclusions on the recommendations for duplication of equipment, as included in annex 2 to the report of its thirty-sixth session (COM 36/21), because of the lack of interpretation of the principle of whether duplicated equipment could be used as a secondary means of alerting. The Sub-Committee agreed that duplicated equipment required further consideration at its thirty-eighth session.

3.37 The Sub-Committee invited Members to consider the matters referred to in paragraph 3.36 and to submit their comments and proposals thereon to its thirty-eighth session.

Testing of MF DSC systems

3.38 The Sub-Committee considered the proposal by the United Kingdom (COM 37/3/2) on regular exercise of ship and coast station MF DSC systems and, agreeing that there were no technical objections and this would be desirable, prepared a COM circular recommending testing of MF DSC equipment by ships and coast stations to ensure equipment operability.

3.39 The Sub-Committee was of the opinion that, in view of the impending entry into force of the GMDSS, the COM circular should be brought to the attention of Member Governments without delay and requested the Secretariat to circulate it as COM/Circ.106 for appropriate action. The Committee is invited

to endorse the action taken by the Sub-Committee in circulating the recommendation.

GMDSS operating guidance for masters of ships in distress situations

3.40 In considering, as requested by the LSR Sub-Committee, the revised draft GMDSS operating guidance for masters of ships in distress situations, the Sub-Committee noted that the LSR Sub-Committee (COM 37/2/1, paragraphs 2.3 and 2.4) had agreed that the guidance (COM 36/WP.12) might be included in the MERSAR Manual but was of the opinion that the guidance should be simplified so that it can also be displayed on a ship's bridge in an A4 size poster.

3.41 Some delegations expressed a preference for the operating guidance given in COM 36/WP.12 to that prepared by the LSR Sub-Committee being of the opinion that the flow diagram provided greater clarity for seafarers inexperienced in radiocommunications.

3.42 The Sub-Committee was informed by SAR experts who had attended LSR 22 that they had considered the flow diagrams too extensive and had prepared the simplified text on the understanding that the equipment would be operated by certificated persons trained in its use; such training would include the details contained in the flow diagrams.

3.43 Taking into account the above comments, the Sub-Committee prepared the GMDSS operating guidance for masters of ships in distress situations, given in COM 37/WP.4/Rev.1. The Secretariat was instructed to bring COM 37/WP.4/Rev.1 to the attention of the twenty-third session of the LSR Sub-Committee for possible inclusion in the MERSAR Manual and the issue, without delay, of a COM circular recommending display of the agreed flow diagram on the ship's bridge.

4 DEVELOPMENT OF THE GMDSS MASTER PLAN

4.1 Taking into account information provided by Germany, Ireland, Italy, Japan and Uruguay in response to MSC/Circ.468 and MSC/Circ.468/Rev.1, the Sub-Committee reviewed COM 37/INF.9 and prepared the tables and other information contained in the provisional draft of the GMDSS Master Plan, given in COM 37/WP.2, annexes 1 to 12.

4.2 The Sub-Committee agreed to add three new annexes (annexes 9, 10 and 11 of COM 37/WP.2) containing lists of SESs commissioned for RCC operations, list of stations providing maritime safety information (MSI) by HF NBDP, and through the SafetyNET system.

4.3 With regard to annex 1 of COM 37/WP.2 - List of countries which have provided information in response to MSC/Circ.468, MSC/Circ.468/Add.1 and MSC/Circ.468/Rev.1, the Sub-Committee decided that, while the information may be useful to the Secretariat for record keeping, it is of no relevance to seafarers and other users of the GMDSS Master Plan. It was therefore decided that the annex should not be included in the Master Plan to be circulated to Member Governments.

4.4 In reviewing the general lay-out of the annexes, the Sub-Committee decided that the associated RCCs should be shown against the names of the coast radio stations, CESs and MCCs in annexes 2, 3, 4, 5 and 6 of

COM 37/WP.2. It also decided to include in annex 7 of COM 37/WP.2 a map showing the NAVAREAS of the world-wide navigational warning service.

4.5 The Secretariat was instructed to incorporate the above amendments in the relevant annexes before finalizing the document for circulation.

4.6 The Sub-Committee reviewed the maps prepared by the Secretariat (annex 12 of COM 37/WP.2) and agreed that the names and positions of the RCCs in addition to the MF and HF coast radio stations should be included therein. To improve the presentation in areas having many shore-based installations for the GMDSS, the Secretariat was instructed to prepare additional maps of small sub-areas on large-scale maps to supplement the general one of the whole SAR area concerned.

4.7 The Sub-Committee discussed a proposal by the delegation of Sweden, supported by some delegations, that it would be advantageous for the maps to show the boundaries of SAR regions and recalled that, as recommended by the Group of Experts of SAR (SAR.I/1, paragraph 9), and the Sub-Committee on Safety of Navigation (NAV 32/13, paragraph 5.1.7), in areas where these boundaries have not yet been agreed or otherwise determined, the ICAO Search and Rescue Region boundaries could be used as provisional boundaries. The delegation of Japan was of the opinion that it was still premature to show such details in the maps as maritime search and rescue regions were yet to be agreed in many parts of the world and it would not be appropriate to substitute ICAO SRR boundaries in regions where agreement has not yet been reached on SAR areas of responsibility. The delegation of Turkey reserved its position with regard to the Swedish proposal to limit national maritime SAR regions to a country's ICAO SRR boundaries.

4.8 The Sub-Committee agreed that the maps of the SAR regions contained in annex 12 of COM 37/WP.2 should be sent to the LSR Sub-Committee for review and any amendments agreed by that Sub-Committee should be circulated as an addendum to, or correction of that annex, as appropriate.

4.9 The INMARSAT observer offered to review and update the information in annex 5 of COM 37/WP.2 - List of INMARSAT Coast Earth Stations for sea area A3 and the maps in annex 12 of COM 37/WP.2 with respect to Coast Earth Stations and to provide the Secretariat with updated data in time for the circulation of the GMDSS Master Plan.

4.10 The Sub-Committee agreed that only the dates on which planned stations will become operational will be included in the GMDSS Master Plan and that other stations will only be shown as operational without giving the dates on which they were commissioned.

4.11 The Sub-Committee discussed a proposal by the delegations of Norway and Sweden that the GMDSS Master Plan should be further developed for inclusion in the SAR Plan and should contain the following elements:

.1 an introduction giving the overview, objective and method of updating the plan and also reference documents (e.g. SAR circulars);

.2 the general operational concept giving a general alert data flow chart and an explanation of information flow in the system;

.3 procedures for ships, RCCs, CRSs, CESs, MCCs and MSI;

.4 list of annexes; and

.5 a list of maps covering SAR areas and SRRs, taking account of the provisions of paragraph 2.1.7 of the Annex to the 1979 SAR Convention that the delimitation of search and rescue regions is not related to and should not prejudice the delimitation of any boundary between States.

4.12 The Sub-Committee instructed the Secretariat to bring the above proposal to the attention of the LSR Sub-Committee for consideration of how the information in the GMDSS Master Plan can be adapted for inclusion in the SAR plan.

4.13 The Sub-Committee agreed that sufficient progress has been made in the development of the GMDSS Master Plan and that the information so far collected should be circulated before the entry into force of the 1988 GMDSS amendments to SOLAS on 1 February 1992.

4.14 The Secretary-General was requested to circulate the information in the GMDSS Master Plan, amended as agreed above, to Member Governments, ITU, IHO and WMO, as a new GMDSS circular, with a request that they bring it to the attention of Maritime and Telecommunication Administrations, SAR authorities, MRCCs, ARCCs, CESs, CSs, MCCs, hydrographers, shipowners, training institutions and seafarers. Additional information and corrections received from Member Governments should also be circulated as GMDSS circulars as soon as possible following receipt by the Secretariat and a list thereof presented to the Sub-Committee for information and action as necessary. The Committee was requested to endorse the action taken by the Sub-Committee in circulating the GMDSS Master Plan.

4.15 Recalling its earlier decision to include in the GMDSS Master Plan information on SESs commissioned for RCC operations and its decision at the present session to include information on stations transmitting MSI by HF NBDP and SafetyNET systems and to show the RCCs associated with the various radio stations, CESs and MCCs, the Sub-Committee agreed that it would be necessary to revise MSC/Circ.468/Rev.1 to include a request for such information in future updating of information by Member Governments.

4.16 The Sub-Committee prepared the revised draft MSC circular - Information on shore-based facilities in the GMDSS, given in annex 3, which the Committee is invited to approve for circulation to Member Governments to replace MSC/Circ.468/Rev.1.

4.17 The Sub-Committee noted that with the finalization of the GMDSS Master Plan as a GMDSS circular, work on its development has been completed. However, to deal with any matters which may arise in the future, the Committee was requested to retain this item as a continuous item on the Sub-Committee's work programme with the title amended to "Matters relating to the GMDSS Master Plan".

4.18 The Sub-Committee concurred in a proposal by the delegation of Australia that consideration should be given to the adequacy or otherwise of the HF station network for the GMDSS, so that, if necessary appropriate

recommendations can be prepared. Members were invited to consider this matter and to submit their comments and proposals to the Sub-Committee's thirty-eighth session.

5 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

Provision of radio services for the global maritime distress and safety system (GMDSS)

5.1 As instructed by the Committee (COM 37/2/3, paragraph 3.8), the Sub-Committee prepared amendments to the draft Assembly resolution on provision of radio services for the GMDSS (MSC 59/33, annex 11), given in annex 4, and instructed the Secretariat to submit them directly to the seventeenth Assembly for consideration when adopting the draft resolution.

Promulgation of MSI in the Persian Gulf

5.2 As instructed by the Committee (COM 37/2/3, paragraph 3.42), the Sub-Committee agreed the following terms of reference for a regional meeting of Persian Gulf countries to be hosted by the Islamic Republic of Iran in Tehran* from 19 to 21 November 1991 so that its conclusions and recommendations may be submitted to the thirty-eighth session of the Sub-Committee for consideration and action as necessary:

.1 to consider the efficient and effective promulgation of maritime safety information (MSI) in the Persian Gulf area through the establishment of the necessary radiocommunication facilities and the broadcast of navigational and meteorological warnings, meteorological forecasts and other urgent safety related messages to ships sailing through the Persian Gulf waters, and in particular to:

.1.1 review the resources available to each of the countries in the area in relation to the requirements of the revised WWNWS Guidance Document (MSC 59/33, annex 12), WMO and the NAVTEX manual;

.1.2 agree, on the basis of sound technical criteria to be prepared by the Secretariats of IMO, IHO and WMO, the delimitation of areas of responsibility, on the understanding that such delimitation shall not be related to and shall not prejudice the delimitation of any boundary between States;

.1.3 review means of communication between national communication focal points and designated national MSI providers and recommend appropriate communication facilities, including the establishment of a NAVTEX service in the Persian Gulf area;

.1.4 devise a system of communication and co-ordination between designated maritime safety information providers on any specific matters related to their role; and

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* To be decided.

.2 to report to the thirty-eighth session of the Sub-Committee on the outcome of its deliberations, conclusions and recommendations.

The International SafetyNET Service

5.3 The United States (COM 37/5) raised the question of how to ensure ships would be able to receive all SafetyNET broadcasts. The Sub-Committee agreed that no solution guarantees 100% certainty of reception, but that a very high and acceptable probability of reception could be achieved if either all ships carry a dedicated EGC receive facility or transmissions are made over all INMARSAT satellites covering the area concerned.

5.4 Information was provided by INMARSAT to explain some technical aspects of EGC receive capabilities when combined with INMARSAT-A and INMARSAT-C SES, as well as stand alone EGC receivers, and the Sub-Committee noted that, regardless of the type of EGC receive facility employed, MSI SafetyNET broadcasts could only be received from one satellite at a time and that is the satellite to which:

.1 the INMARSAT-A SES antenna is pointed; or

.2 the INMARSAT-C SES is tuned; or

.3 the stand alone EGC receiver is tuned.

5.5 In this regard, the IHO and WMO observers stated that the cost of transmitting all messages over all relevant satellites would be too high for many of their members. Further, the Sub-Committee concluded that it would not be realistic to re-open the question of carriage requirements by proposing mandatory carriage of a dedicated EGC receive facility.

5.6 The Sub-Committee therefore agreed a composite approach based on unscheduled broadcast of distress alerts and urgent warnings via all relevant satellites with scheduled broadcast of all messages via a single nominated satellite for each sea area and prepared the draft Assembly resolution on carriage of INMARSAT Enhanced Group Call SafetyNET receivers under the GMDSS, given in annex 5, which the Committee is invited to approve for submission to the eighteenth Assembly for adoption.

5.7 The Sub-Committee instructed the International SafetyNET Co-ordinating Panel to undertake the necessary co-ordination of such broadcast schedules.

5.8 The delegation of Australia described their Administration's experience in establishing and operating an early SafetyNET service, including details of a number of difficulties and proposals for improvements. These were passed to INMARSAT and the International SafetyNET Co-ordinating Panel for action.

5.9 The Sub-Committee prepared a provisional list of operational and planned SafetyNET services and included it in the GMDSS Master Plan.

NAVTEX

5.10 The Chairman of the Co-ordinating Panel on NAVTEX (NAVTEX Panel) informed the Sub-Committee that, since its thirty-sixth session, information on a new NAVTEX service had been received from Malta. Advice had been given

to Canada, the Islamic Republic of Iran, Israel, Malta, Pakistan and the United States.

5.11 The Sub-Committee updated the list of operational and planned NAVTEX services and included it in the GMDSS Master Plan. In this regard the observer from ITU stated that there continued to be discrepancies between the data on NAVTEX services provided by Members to ITU and that promulgated by the Organization in the GMDSS Master Plan. The Sub-Committee invited the Chairman of the NAVTEX Panel to work with ITU to resolve these discrepancies and seek means of avoiding them in the future.

5.12 The Sub-Committee noted a report by Malta that NAVTEX transmissions from NAVAREAs I and II were being received in the central Mediterranean. The Sub-Committee recalled that similar difficulties had been experienced in the Black Sea and agreed that such conflicts were best resolved by direct contact between the stations involved.

5.13 The Sub-Committee noted information on meteorological forecast and NAVTEX areas provided by the United Kingdom (COM 37/INF.4) in response to the Sub-Committee's request (COM 36/21, paragraph 5.12) for Administrations to submit information concerning their NAVTEX Service Areas. Members were requested to provide similar information for inclusion in the GMDSS Master Plan.

5.14 The Sub-Committee discussed the delineation of NAVTEX Service Areas and developed the following definitions:

Coverage Area

An area defined by an arc of a circle having a radius from the transmitter calculated in accordance with the method and criteria given in Annex 4 to Assembly resolution A.[(MSC 59/33, annex 11)](17)* on Provision of Radio Services for the global maritime distress and safety system.

Service Area

A unique and precisely defined sea area, wholly contained within the coverage area, for which MSI is provided from a particular NAVTEX transmitter. It is normally defined by a line which takes full account of local propagation conditions and the character and volume of information and maritime traffic patterns in the region.

5.15 The Sub-Committee decided these definitions should be included in the NAVTEX Manual, when it is revised, and should assist Administrations in establishing NAVTEX Service Areas for the information of mariners and inclusion in the GMDSS Master Plan and other nautical publications.

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* Insert number following adoption by the Seventeenth Assembly.

Broadcasts of MSI by HF NBDP

5.16 At its thirty-fifth session, the Sub-Committee had requested the United States to establish a temporary correspondence group to co-ordinate the development and use of HF NBDP channels for promulgation of MSI. HF channels dedicated for this purpose became available on 1 July 1991. These channels are 4210, 6314, 8416.5, 12579, 16806.5, 19680.5, 22376 and 26100.5 KHz.

5.17 The United States delegation provided information on HF NBDP broadcasts of MSI which it had recently established. This information was included in the GMDSS Master Plan.

5.18 The Sub-Committee invited Members intending to establish HF NBDP broadcasts of MSI to provide information to the Chairman of the HF NBDP MSI Broadcast Correspondence Group*.

Operational information for mariners

5.19 The Sub-Committee considered the requirement for informing mariners of the area limits, frequencies, times and other operational details of MSI broadcasts and decided that this will be adequately served by the existing requirement for the carriage of nautical publications necessary for the intended voyage (regulation V/20 of the 1974 SOLAS Convention).

5.20 Considering that such nautical publications are corrected by notices to mariners (usually issued weekly) and taking account of the relatively infrequent opportunities for updating the GMDSS Master Plan, the Sub-Committee concluded that it would neither be useful nor appropriate to require ships to carry the GMDSS Master Plan to provide information on broadcast details.

5.21 In this regard, the Sub-Committee agreed that existing arrangements for advising hydrographic offices of changes to radio facilities would be adequate for radio services under the GMDSS. However, the Sub-Committee noted that it would be necessary for such nautical publications to also include diagrams showing declared A1, A2 and A3 areas as well as NAVTEX and International SafetyNET Service Areas. The Sub-Committee requested the Secretary-General to bring this opinion to the attention of ITU, IHO and WMO.

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* The Chairman of the HF NBDP MSI Broadcast Correspondence Group can be contacted at:

Mail: Commandant (G-TTM)
U.S. Coast Guard
Washington, D.C. 20593-0001
USA

Telex: 89-2427 COASTGUARD WASH (attention: G-TTM)
Telefax: (202) 267-4106

6 PERFORMANCE STANDARDS FOR SHIPBORNE RADIO EQUIPMENT

EPIRBs and satellite EPIRBs

6.1 The Sub-Committee noted that the Committee (COM 37/2/3, paragraphs 3.14 to 3.17) had amended and approved the draft Assembly resolution on performance standards for float-free satellite EPIRBs operating on 406 MHz so as to permit use of the serialized protocol at least until 1 February 1999 and had agreed to review, prior to 1 February 1995, the code assignment method recommended in paragraph 4, part B, of the annex to the resolution.

6.2 The Sub-Committee noted information on the method of coding of satellite EPIRBs which is accepted and recommended by the Norwegian Administration (COM 37/6/1), and based on the maritime mobile service identities (MMSI) adopted by ITU (appendix 43 to the Radio Regulations). The delegations of Germany, Greece and Spain also supported this method of coding.

6.3 Spain (COM 37/6) expressed deep concern about the false alarms produced by EPIRBs and satellite EPIRBs and stated that the increasing number of EPIRBs will probably give rise to an increase in the number of false alarms. Spain proposed the use of a "performance monitor" to detect on-board transmissions and those when EPIRBs are floating at a distance from the survival craft.

6.4 In this respect, COSPAS-SARSAT (COM 37/INF.7) also recommended that, except for authorized tests, Administrations and EPIRB manufacturers should be made aware that 406 MHz EPIRBs must never be activated in non-distress situations.

6.5 The Sub-Committee supported in principle the idea of monitoring unauthorized transmission by EPIRBs, especially on the frequency 121.5 MHz, but since 121.5 MHz EPIRBs are not part of the GMDSS, installation of monitoring receivers should not be made compulsory. The Sub-Committee also noted that there has been only one case of a false alarm by a 406 MHz EPIRB recorded by Spain and was of the opinion that there is less need for a special monitor to detect 406 MHz EPIRBs false alarms as they can be identified from this identification code.

6.6 The Sub-Committee agreed that the use of a satellite EPIRB monitoring receiver within a survival craft should not be required as its use would not improve the chance of the alert being detected and, at that stage of emergency, there was nothing survivors could do if a fault was indicated.

6.7 The Spanish delegation considered it dubious that false alarms can be identified by means of the 406 MHz EPIRBs identification code and, being of the opinion that it could be possible to repair the fault if detected, reserved the right to reconsider this matter and return to it again.

6.8 The Sub-Committee expressed deep concern that interference from unauthorized transmissions in the 406 MHz band may strongly reduce the effectiveness of the system.

6.9 The Sub-Committee noted information on homing capability tests carried out by Argentina (COM 37/3/1) and in particular the differences in the homing ranges for EPIRBs operating on the frequencies 121.5 MHz and 156.525 MHz. The Sub-Committee invited Argentina to provide more information in this respect

to its thirty-eighth session and also to submit the same information to the LSR Sub-Committee.

6.10 The Sub-Committee was informed that some Administrations have experienced difficulties in applying the provisions of resolution 4 of the 1988 GMDSS Conference concerning acceptance of a satellite EPIRB in lieu of the survival craft EPIRBs required by regulation III/6.2.3 of the 1983 SOLAS amendments due to the shortage of supply of 406 MHz EPIRBs. The Sub-Committee concurred in the opinion of the delegations of Greece and Sweden that, for the purpose of port State control, a letter should be issued by Administrations concerned to ships flying their flags and unable to obtain satellite EPIRBs, and a COM circular should be circulated by the Organization to Member Governments requesting them to note this shortage and to treat with discretion ships provided with such letters pending supply of such equipment.

Technical standards for shipborne radio equipment

6.11 IEC (COM 37/INF.8) informed the Sub-Committee that its Technical Committee 80 (IEC TC 80) has established a Working Group, which will hold its first meeting from 15 to 16 July 1991, to develop technical standards and test methods for GMDSS radio equipment. The Working Group is expected to complete its work by 1993. The technical standard for the SART will be completed in September 1991 and published as IEC publication 1097.

6.12 IEC (COM 37/INF.10) also informed the Sub-Committee of the significant progress made by the IEC TC 80 Working Group on Digital Interfaces in preparing a draft technical standard on standard interfaces. The standard, which will be published by late 1992, will provide for data intercommunication between radiocommunication and navigation equipment and will be relevant to safety alarm systems, integration of ship bridge safety systems, voyage data recorders, ECDIS, world-wide navigation systems, optimal methods of display presentation and studies of the possible equipment for use where the officer of the navigational watch acts as the sole look-out. The Secretariat was instructed to bring this information to the attention of the NAV and DE Sub-Committees.

7 COAST EARTH STATION PERFORMANCE STANDARDS

7.1 The Sub-Committee considered a proposal by the United States (COM 37/7) for it to prepare a draft Assembly resolution on performance standards for coast earth stations (CES) participating in the GMDSS and was of the opinion that performance standards should only be prepared for shipborne radio equipment and that provisions concerning coast earth stations should be incorporated in the draft Assembly resolution on provision of radio services for the system (MSC 59/33, annex 11) as criteria for use when providing services for A3 sea areas.

7.2 On the basis of COM 37/7 and proposals made, the Sub-Committee prepared text of criteria for use when providing shore-based INMARSAT-C/INMARSAT-A facilities for use in the GMDSS, given in annex 2, and a work plan for further consideration of satellite system GMDSS criteria, given in annex 3 to COM 37/WP.6.

7.3 The Sub-Committee invited Members to consider annexes 2 and 3 to COM 37/WP.6 and submit comments and proposals thereon to its thirty-eighth session for consideration.

7.4 The Sub-Committee invited the Committee to replace the item "Coast earth station performance standards" in its work programme by "Criteria for use of shore-based INMARSAT-C/INMARSAT-A facilities in the GMDSS" with target completion date of 1993.

8 CCIR STUDY GROUP 8 MATTERS

8.1 The Sub-Committee noted that the Radio Regulations had been changed as a result of MWARC-87 allowing distress calls to be transmitted when a person is in distress but that CCIR Recommendation 493-4 did not include such a nature of distress in the DSC format. However, the Sub-Committee agreed not to propose changes to Recommendation 493-4 since the nature of an "undesignated distress" could be used in this case.

8.2 The Sub-Committee deferred further consideration of this agenda item until its thirty-eighth session when the outcome of the interim meeting of CCIR Study Group 8 is available.

8.3 Members were invited to consider the various texts prepared by CCIR Working Parties 8B, 8C and 8D, when circulated and to submit comments and proposals thereon to enable the Sub-Committee to prepare, at its thirty-eighth session, any necessary input to the final meetings of the Working Parties.

9 ITU WORLD ADMINISTRATIVE RADIO CONFERENCE MATTERS (WARC-MOB 87 AND WARC-92)

9.1 The Sub-Committee noted that the changes concerning the use, from 1 July 1991, of the HF frequency band implies that coast stations no longer keep watch on the frequency 8364 kHz. Since this frequency can still be used by survival craft equipment in ships not fitted in accordance with the requirements of the GMDSS, the Sub-Committee drew its members' attention to this fact and invited the Committee to inform Member Governments by means of a circular that this frequency is no longer guarded by coast stations.

Allocation frequencies for distress, safety and general communications in the band 1-3 GHz

9.2 The United States (COM 37/9) informed the Sub-Committee that it had proposed to WARC-92 that the maritime mobile satellite bands 1,530-1,544 MHz and 1,626.5-1,645.5 used by INMARSAT for GMDSS and general communications be reallocated to a "generic" mobile-satellite service to include land, maritime and aeronautical services and to protect the GMDSS and other maritime safety communications, they had also proposed an allocation footnote.

9.3 The Sub-Committee agreed to the following recommendation:

> In order for the global maritime distress and safety system to function properly, continued access to the bands 1,530-1,544 MHz and 1,626.5-1,645.5 MHz in accordance with Radio Regulations N3046, N3052, N3107 and N3248, as well as the safety bands 1,544-1,545 MHz and 1,645.5-1,646.5 MHz, is required. If other services are to use these bands, to ensure safety of life at sea, all GMDSS distress and safety communications must be afforded adequate, effective and immediate access and protection. These distress and safety communications include, but are not limited to, transmissions of maritime safety

information (in the GMDSS, SafetyNET), distress calls and traffic, acknowledgement and relaying of distress calls, search and rescue co-ordination communications, ship movement service communications, radionavigation-related communications, navigational and meteorological warnings, meteorological observations, ship position reports and medical emergencies (e.g. MEDICO/MEDIVAC).

9.4 The United States (COM 37/9/1) also invited the Sub-Committee to consider the intention of INMARSAT to transfer distress and safety traffic into dedicated distress and safety bands and the need for additional spectrum in or near the 1,530-1,545 MHz band in order for INMARSAT to be able to implement the intended transfer and the need to develop a suitable recommendation on this matter for Administrations to use in finalizing their proposals for WARC-92.

9.5 The Sub-Committee expressed concern at the increasing demands within the dedicated distress and safety bands at L-band. An additional concern exists if new allocations are made for mobile satellite use and equipment configurations are developed which are only able to operate in the new bands. In such cases, there may be a need for dedicated distress and safety sub-bands in these new bands. The relative priorities of non-safety maritime traffic with respect to other traffic using these bands may also need to be addressed.

9.6 Taking into account COM 37/9, COM 37/9/1, COM 36/8/1, COM 36/8/2, COM 36/8/3 and COM 36/INF.8, the Sub-Committee prepared recommendations reflecting the Organization's position on items to be considered by WARC-92, given in annex 6.

9.7 The Sub-Committee instructed the Secretariat to convey annex 6 directly to ITU together with a request that the recommendations be brought to the attention of WARC-92.

9.8 Members were invited to brief their colleagues attending WARC-92 on the IMO position on relevant items of the Conference's agenda.

Liaison statement to IMO concerning access to ships carrying more than one radio installation

9.9 The Sub-Committee noted a Liaison Statement from CCITT Study Group II, Working Party II/1 (Q.4/II) (COM 37/9/2) on the subject of access to ships carrying more than one radio installation, which the Sub-Committee had requested the Study Group to consider (COM 35/17, paragraph 6.1). As no contributions had been received by Working Party II/1, the Study Group had been unable to progress its work on the subject and had requested the Sub-Committee to clarify a number of relevant issues.

9.10 The Sub-Committee was of the opinion that the necessary information could not be given to CCITT by only responding to such a question but that, in addition, IMO should participate at the next meeting of CCITT Working Party II/1. Based on that meeting's considerations, it could then be decided if further attention should be given to this item.

9.11 It was proposed that, in order to obtain rapid access to ships carrying more than one radio installation, each ship should be given only one unique identity. In addition, when more than one item of equipment operating in the

same radio system are installed, only one should have priority for incoming calls.

9.12 Members were invited to consider the above proposal and to submit amendments and proposals thereon for consideration at the Sub-Committee's thirty-eighth session.

ITU Voluntary Group of Experts (VGE)

9.13 The Sub-Committee noted (COM 37/INF.5) information on the ITU Voluntary Group of Experts (VGE) recently established to study the allocation and improved use of the radio frequency spectrum and simplification of the Radio Regulations and the initial report of the VGE Chairman to the ITU Administrative Council outlining VGE's organization of work, its timetable and a list of questions relevant to the three tasks under consideration by VGE.

9.14 The Sub-Committee noted that Task 3 - Operational and administrative provisions, includes matters of importance to IMO, in particular questions 3 and from 8 to 10 concerning consideration of the distress and safety provisions of the Radio Regulations and the feasibility of transferring certain present ITU responsibilities elsewhere, e.g. articles and appendices concerning maritime radiocommunications to IMO.

9.15 The Sub-Committee was of the opinion that useful contribution to this work cannot be obtained only through correspondence and that, therefore, IMO should participate at the relevant meetings, as necessary.

10 SATELLITE SERVICES (INMARSAT and COSPAS-SARSAT)

Matters related to INMARSAT

10.1 The Sub-Committee noted general information (COM 37/INF.6) on the status of the INMARSAT system related to the period from 1 September 1990 to 1 May 1991 and, in particular, that:

.1 twenty-eight coast earth stations provide basic telex, telephony and message transfer communications to ships and interconnection to almost all countries;

.2 the population of INMARSAT-A commissioned ship earth stations reached 12,871 by 1 January 1991 (the number of ships equipped with INMARSAT SES by 20 May 1991 was 11,532); and

.3 the effective availability of the INMARSAT-A Priority Three System for ship-to-shore distress alerting was:

- Atlantic Ocean Region - East (AORE) 99.887%;
- Atlantic Ocean Region - West (AORW) 99.965%;
- Indian Ocean Region (IOR) 99.926%; and
- Pacific Ocean Region (POR) 99.932%.

10.2 The United States delegation was of the opinion that INMARSAT, COSPAS-SARSAT, and GMDSS Contracting Governments should be invited to provide to the thirty-eighth session of the Sub-Committee information on service availability (e.g. grade of service) for all stations in sea areas A1, A2, A3 and A4, where this information is available.

10.3 The USSR delegation was of the opinion that the methodology of assessing the suggested GMDSS service availability should be first worked out by the Technical Working Group at the Sub-Committee's thirty-eighth session and the possible ways of collecting such information considered.

10.4 The Sub-Committee invited INMARSAT, COSPAS-SARSAT and Member Governments providing shore-based facilities for the GMDSS to provide information on, as appropriate, coast earth station, LUT or coast station GMDSS service availability, where it is available, and to submit their comments and proposals on the methodology for its assessment to the Sub-Committee's thirty-eighth session to enable the Technical Working Group to give consideration to this matter.

10.5 The Sub-Committee also noted that:

.1 nine INMARSAT-A land based SESs are operated by RCCs in order to improve their ability to co-ordinate search and rescue operations when difficulties are expected in establishing contact via other means of communication;

.2 the thirty-sixth session of the INMARSAT Council decided that L-band satellite EPIRB services would be provided through the INMARSAT system and be developed with a view to implementation before the start of the GMDSS. No space segment utilization charge would be levied for a distress alert via an L-band satellite EPIRB; and

.3 a commercial INMARSAT-C communications network has been established in AORE, IOR and POR supported by network co-ordination stations in Singapore, Goonhilly and Thermopylae. Land earth stations in operation are the following: Perth (Australia) and Singapore in POR; Pleumeur Bodou (France), Blavand (Denmark) in AORE; Perth (Australia) in IOR. INMARSAT-C operation in the AORW will commence later this year. INMARSAT is actively monitoring the performance of the networks and developing procedures and software tools to assist with efficient operations.

10.6 The Sub-Committee noted with concern the high number of false distress alerts reported and was informed that each false alarm was followed up by INMARSAT and each ship contacted to find out the reason. INMARSAT is intensifying its action in this regard in order to improve the situation.

10.7 The Sub-Committee noted that the availability of appropriate receiving and processing ground facilities for each ocean region covered by INMARSAT satellites, referred to in the footnote to SOLAS regulation IV/7.1.6.1, was expected to be implemented before the date of entry into force of the 1988 amendments to the 1974 SOLAS Convention for the GMDSS (1 February 1992) for L-Band Satellite EPIRBs.

10.8 The Sub-Committee also noted that world-wide coverage of INMARSAT Standard-C is also expected to be available by 1 February 1992 with the final back-up coast earth stations in each ocean region entering service by or shortly after this date.

10.9 The Sub-Committee requested INMARSAT to inform the Secretariat when full L-Band Satellite EPIRB facilities and world-wide coverage of Standard-C CESs were achieved and instructed the Secretariat to bring this information to the attention of Members and Contracting Governments by means of an approved circular.

Matters related to COSPAS-SARSAT

10.10 The Sub-Committee noted general information on the COSPAS-SARSAT programme status (COM 37/INF.7) and, in particular, that:

.1 a new satellite, COSPAS-6, was launched in March 1991, bringing to six the number of COSPAS-SARSAT satellites at present in orbit;

.2 18 ground receiving stations (local user terminals (LUTs)) and 10 Mission Control Centres (MCCs) are operating in the system;

.3 about 10,000 satellite EPIRBs operating on 406 MHz were registered by the end of 1990, their present number being estimated at between 13,000 and 17,000; and

.4 between 1982 and the end of 1990 the COSPAS-SARSAT system was used in over 668 SAR events (of which 226 were maritime distress incidents) and 1,765 persons were rescued.

10.11 The delegation of Germany was of the opinion that more detailed information than is given in paragraph 10.10.1 on COSPAS-SARSAT satellite availability would be useful to the Sub-Committee, in particular, whether each satellite is and remains fully operational on the 121.5 MHz and 406 MHz frequencies and whether the 406 MHz frequency continues to provide world-wide coverage. The Sub-Committee invited COSPAS-SARSAT to consider this matter and, if available, to provide this information.

10.12 The Sub-Committee also noted information on manufacturers of type-approved 406 MHz EPIRBs and instructed the Secretariat to circulate this information to Member Governments by means of COM/Circ.101/Rev.2.

11 TRANSMISSION OF UPDATING INFORMATION FOR ELECTRONIC NAVIGATIONAL CHARTS

11.1 The Sub-Committee noted that the Committee had retained this item in its work programme until 1994.

11.2 Pending receipt of the results of the interim meeting of CCIR Working Party 8C (11 to 20 December 1991), which is expected to consider matters related to the updating of electronic navigational charts (ENC) (CCIR question 98/8), the Sub-Committee deferred its consideration of transmission of updating information for ENC to its thirty-eighth session.

11.3 Members were invited to consider the report on the outcome of the WP 8C meeting and to submit comments and proposals thereon to its thirty-eighth session.

12 REVIEW OF CHAPTER 13 OF THE CODE OF SAFETY FOR DYNAMICALLY SUPPORTED CRAFT

12.1 The Sub-Committee noted the decisions of the thirty-fourth session of the DE Sub-Committee (COM 37/2/2) and, in particular, the provisions of the revised chapter I of the Code of Safety for Dynamically Supported Craft (annex to COM 37/2/2), which should be taken into account by the Sub-Committee when considering chapters 8 and 13 of the Code.

12.2 Taking into account the comments and proposals of Hong Kong (COM 37/12), Portugal (COM 37/12/1) and the United Kingdom (COM 37/12/2), the Sub-Committee prepared comments on and proposed amendments to chapters 1, 8, 13 and 17 of the Code, given in COM 37/WP.5/Rev.1, and instructed the Secretariat to convey them to the DE and NAV Sub-Committees for consideration and comment, as appropriate.

12.3 Members were invited to consider COM 37/WP.5/Rev.1, and the comments and proposals of the DE and NAV Sub-Committees and to submit their comments and proposals thereon to enable the Sub-Committee to finalize its consideration of this item at its thirty-eighth session.

12.4 With regard to the facilities required to be located in a "base port" in accordance with paragraph 1.4.12 of the annex to COM 37/2/2, Sweden was of the opinion that:

.1 such facilities could be adequately located elsewhere along the craft's route; and

.2 coast station coverage and the SAR organization could fulfil the required purposes for satisfactory radiocommunications and SAR activities.

12.5 However, with regard to the limited survival capability of high-speed craft, the delegation of Sweden, supported by the delegations of Denmark and the USSR, suggested that such craft be required to report their position to the appropriate coast station at preset intervals to the satisfaction of the Administration, taking into account the length of the route.

13 INTERNATIONAL CODE OF SIGNALS

The Sub-Committee took no action with respect to this item as no documents had been submitted.

14 WORK PROGRAMME

Taking into account the progress made during the session, the Sub-Committee reviewed and prepared the draft revised work programme, given in annex 7, for consideration and approval by the Committee.

15 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 1992

In accordance with rule 16 of the Rules of Procedure of the Maritime Safety Committee, the Sub-Committee unanimously re-elected Mr. R.C. McIntyre (United States), as Chairman, and Commander Ph. Pitaoulis (Greece), as Vice-Chairman for 1992.

16 ANY OTHER BUSINESS

Revision of the 1977 Torremolinos International Convention

16.1 The Sub-Committee noted that the Committee at its fifty-ninth session urged the Sub-Committee to finalize its contribution at its thirty-seventh session and, in particular, review the recommendations 10 to 12 of attachment 3 to the Final Act of the 1977 International Conference (COM 37/2/3, paragraph 2.1).

16.2 The Sub-Committee considered the proposal by China (COM 37/16) that regulation VII/123 (radar transponders) should be so amended that at least one radar transponder should be carried on every fishing vessel of 45 m in length and above.

16.3 The Sub-Committee recalled that:

.1 the revised regulation III/6.2.2 of SOLAS 74 stipulates that at least one radar transponder shall be carried on every cargo ship between 300 and 500 tons gross tonnage, and at least two radar transponders shall be fitted on every cargo ship of 500 tons gross tonnage and upwards, and

.2 the requirements for only one transponder on ships below 45 m which appeared in the original draft regulation VII/123 had been deleted, on the understanding that firstly chapters VII and IX of the Protocol apply only to fishing vessels of 45 m and above and secondly fishing vessels of 45 m in length would roughly correspond to vessels of 500 tons gross tonnage.

16.4 China claimed, however, that Chinese fishing vessels of 45 m in length are much smaller than 500 tons gross tonnage. The Sub-Committee therefore recommended that the SLF Sub-Committee consider whether requirements for one radar transponder for fishing vessels of 45 m and above but less than 500 tons gross tonnage should be included in regulation VII/123 of the Protocol.

16.5 The Sub-Committee considered footnotes to draft chapter IX of the Protocol (COM 36/WP.6) and agreed that footnote * under regulation 133(1)(a)(i) and (e) should be deleted, since the review of the DSC and NBDP carriage requirements as called for by this footnote had been completed.

16.6 The Sub-Committee considered recommendations 10 to 12 in attachment 3 and resolutions 6 and 7 in attachment 4 to the Final Act of the 1977 Conference and agreed that these recommendations and resolutions would become obsolete upon the introduction of the GMDSS in the Torremolinos Protocol and therefore should be invalidated by the Conference for the adoption of the Protocol. Such invalidation could be effected by the adoption of a suitable resolution of the Protocol Conference (see resolution 4 of the 1974 SOLAS Conference concerning the recommendations of the 1960 SOLAS Conference).

16.7 On the other hand, the Sub-Committee noted that the GMDSS requirements for existing fishing vessels would not become fully applicable until

1 February 1999 or the date of entry into force of the Protocol, whichever occurs later (see draft regulations VII/..* and IX/128 in COM 36/WP.6).

16.8 The Sub-Committee considered it highly desirable to implement the GMDSS requirements both for existing cargo ships and fishing vessels by 1 February 1999, even if the Protocol has not yet entered into force by that date. The Sub-Committee, therefore, recommended that the SLF Sub-Committee prepare a draft Conference resolution recommending Governments to take steps to implement the revised chapter IX and related requirements in the Protocol introducing the GMDSS not later than 1 February 1999 for existing fishing vessels without awaiting the entry into force of the Protocol.

16.9 The Sub-Committee noted the suggestion by China that Chinese fishing vessels under 30 m in length use 33 MHz radiotelephone system for distress and safety communications and this should be considered in the equipment guidelines. The Sub-Committee noted that draft article 3 of the Protocol calls for Parties to establish uniform regional standards to be applied to fishing vessels below 45 m in length, taking account of the mode of operation, sheltered nature and climatic conditions in the relevant regions. The Sub-Committee, therefore, agreed that the above suggestion would be taken into account when the development of regional standards for small fishing vessels is included in the Sub-Committee's work programme in the future.

16.10 The Secretariat was requested:

.1 to transmit the information contained in paragraphs 16.1 to 16.8 above to the SLF Sub-Committee; and

.2 to prepare for consideration by the SLF Sub-Committee draft Conference resolutions referred to in paragraphs 16.6 and 16.8 above.

Date of the thirty-eighth session

16.11 The Sub-Committee noted that its thirty-eighth session had been tentatively scheduled to be held from 29 June to 3 July 1992.

Expressions of appreciation

16.12 The Sub-Committee expressed its deep appreciation for the valuable contribution to its work of:

.1 Mr. O. Andersen (Norway), due to retire shortly, who had participated over a period of almost thirty years both in the Sub-Committee and in the Organization's work on radiocommunications before the Sub-Committee was established in 1966 as a delegate of Norway and a member of the Secretariat; and

.2 Mr. V. Scheglov (IMO), Secretary of the Sub-Committee's Technical Working Group, due to return home shortly. The Sub-Committee wished Mr. Scheglov every success in his new duties.

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* A new regulation to be inserted in due course at the beginning of chapter VII.

17 ACTION REQUESTED OF THE COMMITTEE

17.1 The Committee is invited to:

.1 note the Sub-Committee's opinion that no further action appears necessary to upgrade existing ship radio standards (paragraph 3.17);

.2 note that, with regard to radio matters left to the "discretion of the Administration" in the 1988 SOLAS amendments, no further action on the part of the Organization is necessary until experience has been gained by Administrations (paragraph 3.18);

.3 note that, provided Members respond to COM/Circ.70/Rev.1, no further statistical information is required by the Sub-Committee at this stage (paragraph 3.25);

.4 approve the proposed amendments to regulations IV/13.2.1 to 13.2.3, given in paragraphs 3.27 and 3.28, with a view to their adoption at the Committee's sixty-first session (paragraph 3.29);

.5 pending adoption of the proposed amendments, recommend, by means of an appropriate circular, that Member Governments require cargo ships between 300 and 500 tons gross tonnage to which the amendments, given in paragraph 3.27, would apply, to be provided with a reserve source of energy capable of providing for the operation of the equipment required by regulation IV/13.2 for a period of at least six hours (paragraph 3.30);

.6 note for circulation to Member Governments the draft clarification of certain provisions of chapter IV of the 1988 SOLAS amendments concerning radiocommunications for the GMDSS (paragraph 3.33 and annex 2);

.7 endorse the Sub-Committee's action in requesting the Secretariat to circulate COM/Circ.106 on testing of MF DSC equipment by ships and coast stations to ensure equipment operability (paragraph 3.39);

.8 endorse the action taken by the Sub-Committee in circulating the GMDSS Master Plan by means of a new GMDSS circular (paragraph 4.14);

.9 approve for circulation to Member Governments as MSC/Circ.468/Rev.2 the revised draft MSC circular - Information on shore-based facilities in the GMDSS (paragraph 4.16 and annex 3);

.10 note that the Sub-Committee submitted, as authorized by MSC 59, amendments to the draft Assembly resolution on provision of radio services for the GMDSS (MSC 59/33, annex 11) directly to the Assembly (paragraph 5.1 and annex 4);

.11 approve the draft Assembly resolution on carriage of INMARSAT enhanced group call safetyNET receivers under the GMDSS for submission to the eighteenth Assembly for adoption (paragraph 5.6 and annex 5);

.12 inform Member Governments, by means of a circular, that frequency 8364 kHz is no longer guarded by coast stations (paragraph 9.1);

.13 note that the Sub-Committee conveyed, as authorized by MSC 59, its recommendations to Administrations concerning issues to be addressed by WARC-92 directly to ITU for consideration by the Conference (paragraphs 9.7 and 9.8); and

.14 approve the report in general.

17.2 In reviewing the work programme of the Sub-Committee, the Committee is invited to consider the Sub-Committee's revised work programme (annex 7) and to:

.1 endorse the opinion given in paragraphs 3.14 and 3.15 and delete subitem 1.1 "Review of digital selective calling for all ships and HF narrow-band direct-printing" from the Sub-Committee's work programme (paragraph 3.16);

.2 retain subitem 1.2 "Matters relating to the GMDSS Master Plan" as a continuous item on the Sub-Committee's work programme with the title so amended (paragraph 4.17);

.3 replace the item "Coast earth station performance standards" by "Criteria for the use of shore-based INMARSAT-C/INMARSAT-A facilities in the GMDSS" with target completion date of 1993 (paragraph 7.4);

.4 amend the target completion date of item 4 to 1993;

.5 amend item 10 to "Review of radiocommunication matters for the Code of Safety for High Speed Craft (work co-ordinated by the DE Sub-Committee)";

.6 amend item 12 to "Registration system and coding of 406 MHz EPIRBs (in co-operation with the LSR Sub-Committee)" with a target completion date of 1994;

.7 amend item 14 to "Amendment of SOLAS chapter V regulations for compatibility with WMO provisions (if requested by the NAV Sub-Committee)"; and

.8 add a new item on the "Outcome of the ITU Voluntary Group of Experts (VGE) meetings" with target completion date of 1994.

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ANNEX 1

AGENDA FOR THE THIRTY-SEVENTH SESSION
INCLUDING A LIST OF DOCUMENTS

1 Adoption of the agenda

COM 37/1	-	Secretariat
COM 37/1/1	-	Secretariat

2 Decisions of other IMO bodies

COM 37/2	-	Secretariat
COM 37/2/1	-	Secretariat
COM 37/2/2	-	Secretariat
COM 37/2/3	-	Secretariat

3 Maritime Distress and Safety System

COM 37/3	-	Portugal
COM 37/3/1	-	Argentina
COM 37/3/2	-	United Kingdom
COM 37/3/3	-	Denmark
COM 37/3/4	-	Germany
COM 37/3/5	-	Netherlands
COM 37/3/6	-	Netherlands
COM 37/3/7	-	Norway
COM 37/3/8	-	Secretariat
COM 37/INF.2	-	Secretariat/CCITT
COM 37/INF.3	-	Germany
COM 37/WP.4/Rev.1	-	Drafting Group
COM 37/WP.7	-	Secretariat
COM 37/WP.8	-	Drafting Group

4 Development of the GMDSS Master Plan

COM 37/INF.9	-	Secretariat
COM 37/WP.2	-	Working Group

5 Promulgation of Maritime Safety Information (MSI)

COM 37/5	-	United States
COM 37/5/1	-	INMARSAT
COM 37/INF.4	-	United Kingdom
COM 37/WP.3	-	Working Group

6 Performance standards for shipborne radio equipment

COM 37/6	-	Spain
COM 37/6/1	-	Norway
COM 37/INF.8	-	IEC
COM 37/INF.10	-	IEC
COM 37/WP.6	-	Working Group

7 Coast earth station performance standards

COM 37/7	-	United States

8 CCIR Study Group 8 Matters

(No document submitted)

9 ITU World Administrative Radio Conference

COM 37/9	-	United States
COM 37/9/1	-	United States
COM 37/9/2	-	Secretariat/CCITT
COM 37/INF.5	-	Secretariat

10 Satellite services - INMARSAT and COSPAS-SARSAT

COM 37/INF.6	-	INMARSAT
COM 37/INF.7	-	COSPAS-SARSAT

11 Transmission of updating information for electronic navigational charts

(No document submitted)

12 Review of chapter 13 of the Code of safety for dynamically supported craft

COM 37/12	-	Hong Kong
COM 37/12/1	-	Portugal
COM 37/12/2	-	United Kingdom
COM WP.5/Rev.1	-	Drafting Group

13 International Code of Signals

(No document submitted)

14 Work programme

(No document submitted)

15 Election of Chairman and Vice-Chairman for 1992

(No document)

16 Any other business

COM 37/16	-	China
COM 37/WP.1	-	Drafting Group

17 Report to the Maritime Safety Committee

COM 37/WP.9	-	Draft Report
COM 37/WP.9/Add.1	-	Draft Report
COM 37/17	-	Report

* * *

COM 37/INF.1	-	List of participants

ANNEX 2

CLARIFICATIONS OF CERTAIN PROVISIONS OF THE
1988 SOLAS AMENDMENTS FOR THE GMDSS

1 Position from which the ship is normally navigated

This is commonly the navigating bridge.

2 VHF DSC watchkeeping facility (regulation IV/7.1.2)

This requirement can be met by:

- a separate VHF channel 70 watch receiver; or
- a dedicated VHF channel 70 watch receiver combined with the VHF radiotelephone; or
- a standard VHF radiotelephone permanently locked on channel 70 for reception and transmission of DSC calls only.

3 VHF radiocommunications from the wings of the navigating bridge for navigational safety (regulation IV/6.3)

This requirement can be met by:

- a standard VHF radiotelephone; or
- a facility consisting of a loudspeaker and a microphone with channel selector; or
- a facility consisting of a loudspeaker and a microphone (in this case the channel selector will be convenient to the conning position); or
- a portable VHF equipment with channel selector (it may be the equipment required by regulation III/6.2.1).

4 MF DSC watchkeeping facility (regulation IV/9.1.2 and IV/10.1.2.3)

This requirement can be met by:

- a separate MF DSC watch receiver locked on 2,187.5 kHz; or
- a dedicated MF DSC watch receiver combined with the MF radiotelephone.

If DSC operation is desirable on other frequencies, an additional scanning receiver shall be provided.

A single DSC decoder may be used to serve both the DSC watch and the additional scanning receiver only if continuous watch for distress and safety calls can be maintained.

5 MF/HF DSC watchkeeping facility (regulation IV/10.2.2)

This requirement can be met by:

- a separate MF/HF DSC scanning watch receiver for distress and safety DSC frequencies only; or

- a dedicated MF/HF DSC scanning watch receiver for distress and safety DSC frequencies only combined with the MF/HF radiotelephone.

If DSC operation is desirable on other frequencies, an additional scanning receiver should be provided.

A single DSC decoder may be used to serve both the DSC distress and safety frequency scanning receiver and the additional scanning receiver only if continuous watch for distress and safety calls can be maintained.

6 Reception of MSI by HF (regulation IV/7.1.5)

This requirement can be met by:

- a separate HF-MSI receiver; or

- the receiver of the MF/HF radio installation.

7 NAVTEX Receiver (regulation IV/7.1.4)

The NAVTEX receiver shall receive on the frequency 518 kHz as a minimum. Manual switching to receive on frequency 490 kHz is permissible. The capability to receive on 4,209.5 kHz is recommended. Combined equipment, e.g. with weather facsimile, can be accepted, if receiving and printing of all selected NAVTEX information have priority.

8 Means of initiating the transmission of ship-to-shore distress alerts by a separate and independent system (regulation IV/8.1, 9.1.3, 10.1.4 and 10.2.3).

The satellite EPIRB required by regulation IV/7.1.6 can be accepted if it is installed in the vicinity of the bridge, e.g. in the wings of the navigating bridge, on top of the wheelhouse, if accessible by stairs, or if its activation is possible by remote control from the position from which the ship is normally navigated. Where intended for remote activation, the EPIRB should be installed so that it has unobstructed hemispherical line of sight to the satellites.

Another possibility is to install another statellite EPIRB on the navigating bridge.

The requirement for transmitting ship-to-shore distress alert on HF using DSC can be met by installing an MF/HF radio installation in lieu of the MF radio installation required by regulation IV/10.1.2. This MF/HF radio installation does not have to operate direct-printing telegraphy nor maintain a DSC watch on other frequencies than 2,187.5 kHz.

9 Telex communications (regulation IV/10.2.1.3)

Automatic reception of shore-to-ship direct-printing telegraphy is not

10 Initiation of distress alerts on VHF channel 70 (regulation IV/7.1.1.1)

The requirement to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated can be met by:

- the VHF radio installation which is installed on the navigating bridge; or
- the remotely installed VHF radio installation which can be switched to channel 70 and readily activated from the navigating bridge; or
- the remotely installed VHF radio installation which is locked to channel 70 and can be readily activated from the navigating bridge.

11 Initiation of distress alerts by the MF radio installation (regulation IV/9.2 and 10.3)

The requirement to initiate the transmission of the distress alerts by the MF radio installation from the position from which the ship is normally navigated can be met by:

- the MF radio installation which is installed on the navigating bridge; or
- the remotely installed MF radio installation which can be switched to the frequency 2,187.5 kHz and readily activated from the navigating bridge; or
- the remotely installed MF radio installation which is locked on the frequency 2,187.5 kHz and can be readily activated from the navigating bridge.

If the transmitting antenna is not connected continuously to the transmitter it shall be connected automatically in case of initiation of distress alerts.

12 Initiation of distress alerts by the MF/HF radio installation (regulation IV/10.3)

The requirement to initiate the transmission of the distress alerts by the MF/HF radio installation from the position from which the ship is normally navigated can be met by:

- the MF/HF radio installation which is installed on the navigating bridge; or
- the remotely installed MF/HF radio installation which can be switched to any MF/HF DSC distress frequency and readily activated from the navigating bridge.

If the transmitting antenna is not connected continuously to the transmitter it shall be connected automatically in case of initiation of distress alerts.

13 Radio installations on the navigating bridge where a separate radio room exists

On ships complying with the GMDSS provisions and which do not have all radio installations on the navigating bridge, at least:

(i) the permanent monitoring of the distress and safety frequencies including maritime safety information;

(ii) the means to conduct the radiocommunications for navigational safety; and

(iii) the initiation of distress alerts

should be possible from the navigating bridge. Remote control facilities for distress and safety communications could be placed at the navigating bridge.

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ANNEX 3

Draft MSC/Circ.468/Rev.2

INFORMATION ON SHORE-BASED FACILITIES IN THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)

1 The Martime Safety Committee, at its sixtieth session [.. to .. April 1992], approved for circulation the revised questionnaire on information on shore-based facilities in the GMDSS, annexed.

2 Member Governments, including those which have submitted answers to the previous circulars, are urged to provide information on their intentions to provide shore-based facilities for the GMDSS in accordance with the new questionnaire.

ANNEX

A1 Sea Area

1 Does your Country intend to establish A1 Sea Area(s)? YES ☐ NO ☐

Is it operational now? YES ☐ NO ☐

If not operational now, date of implementation? .....

2 VHF stations

	Name of station	Position	Range (1)	Associated RCC Name	Associated RCC Location	For public correspondence only	For distress and safety only	For public correspondence only
Main station								
Monitored stations								
Main station								
Monitored stations								

Note: Refer to resolution [A.659(16/17)].

3 Do they keep full-time watch on channel 70? YES ☐ NO ☐

If not, indicate hours of watch .....

5 Provide a map indicating:

- Name and location of main VHF stations
- Coverage of main and monitored Transmitter (T/X)
- Name and location of associated RCC(s)

A2 Sea Area

		YES	NO
1	Does your Country intend to establish A2 Sea Area(s)?	☐	☐
	Is it operational now?	☐	☐
	If not operational now, date of implementation?	.....	

2 MF stations

	Name of station	Position	Range (1)	Associated RCC Name	Associated RCC Location	For public correspondence only	For safety only	For public correspondence and safety
Main station								
Monitored stations								
Main station								
Monitored stations								

Note: Refer to resolution [A.659(16/17)].

		YES	NO
3	Do they keep watch on DSC 2,187.5 KHz frequency/full time?	☐	☐
	If not, indicate hours of watch	.....	

4 Provide map indicating:

- Name and location of main MF stations
- Coverage of main and monitored Transmitter (T/X)
- Name and location of associated RCC(s)

A3, A4 Sea Areas

1 Does your country intend to equip one or more HF station with HF DSC facilities? — YES |___| NO |___|

Is it operational now? — YES |___| NO |___|

If not operational, date of implementation? .....

2 HF station

Name of station call sign	Position	Associated RCC Name	Associated RCC Location	Frequency bands 4	6	8	12	16

3 Are these stations used for purposes of:

- public correspondence only? YES |___| NO |___|
- distress and safety only? YES |___| NO |___|
- both? YES |___| NO |___|

4 Are they keeping full-time watch on the band?

	YES	NO
4 MHz	..	..
6 MHz	..	..
8 MHz	..	..
12 MHz	..	..
16 MHz	..	..

If not, indicate hours of watch .....

INMARSAT facilities

1 Does your country operate an INMARSAT CES? YES |___| NO |___|

Is it operational now? YES |___| NO |___|

If not, date of implementation? .....

2 INMARSAT COAST EARTH STATION

Location	Ocean area	Services provided			L-band	Associated RCC	
		INMARSAT-A	INMARSAT-C	SafetyNET	EPIRB	Name	Location

3 SHIP EARTH STATIONS COMMISSIONED FOR RCC OPERATIONS

Does your country intend to commission a ship earth station for RCC operation? YES |___| NO |___|

Date of implementation .....

RCC Name .....

Position .....

Maritime Safety Information

1 International NAVTEX Service

(a) Does your country operate an International NAVTEX Service? YES |___| NO |___|

(b) Is it operational now? YES |___| NO |___|

(c) If not operational, date of implementation? .....

(d) 518 KHz transmitters

- location

- transmission characteristics (see resolution [A.659(16/17)]

- identification letter

- schedule of transmission

2 4 MHz NAVTEX service

	YES	NO
(a) Does your country operate a 4 MHz NAVTEX service?	|____|	|____|
(b) Is it operational now?	|____|	|____|
(c) If not operational, date of implementation?	.....	

(d) 4MHz transmitter

- location

- transmission characteristics

- identification letter

- schedule of transmission

- language

3 SAFETYNET

	YES	NO
(a) Does your country intend to broadcast MSI through SafetyNET?	|____|	|____|

(b) Coast Earth Station to be used

- Name
- Location/Country

(c) Ocean Area

AOR - E
AOR - W
POR
IOR

(d) Area covered

Latitude/Longitude 1 2

3 4

or
Latitude
Longitude, and
Radius

(e) schedule of transmission

4 HF MSI

	YES	NO
(a) Does your country intend to broadcast MSI by HF?	☐	☐
(b) Is it operational now?	☐	☐

If not, indicate the date .....

(c) HF transmitters

Freqency band	Name Call/Sign	Location	Schedule 0h-04h	05-08h	09h-12h	13h-16h	17h-20h	21h-24h
4 MHz								
6 MHz								
8 MHz								
12 MHz								
16 MHz								
19 MHz								
22 MHz								
26 MHz								

COSPAS-SARSAT

	YES	NO
1 Does your country intend to implement ground facilities in the COSPAS-SARSAT system?	☐	☐
Is it operational now?	☐	☐

If not, date of implementation? .....

2 Ground facilities

	MCC	Location	Associated RCC	
			Name	Location
LUT(s) associated				

Direction finders on VHF

	YES	NO
Does your country intend to establish a VHF-DF network?	☐	☐
Is it operational now?	☐	☐

If not operational now, date of implementation? .....

Position latitude longitude	Range	Channel		
		16	70	others

***

ANNEX 4

PROPOSED AMENDMENTS TO THE DRAFT ASSEMBLY RESOLUTION
ON PROVISION OF RADIO SERVICES FOR THE GMDSS
(MSC 59/33, ANNEX 11)

1 In operative paragraph 2 commencing with "ADOPTS", amend line 4 by replacing "when providing NAVTEX Service" by "when providing NAVTEX and/or International SafetyNET Services".

2 In annex 1, paragraph 3 (MSC 59/33/Add.1, annex 11) amend line 2 to read:

"sea areas A1, A2 and A3, NAVTEX and/or International SafetyNET Service Areas it has ...".

3 Replace annex 4 (MSC 59/33/Add.1, annex 11) by:

"ANNEX 4

CRITERIA FOR USE WHEN PROVIDING A NAVTEX SERVICE

1 There are two basic areas which must be defined when establishing a NAVTEX service. They are:

Coverage Area

An area defined by an arc of a circle having radius from the transmitter calculated according to the method and criteria given in this annex.

Service Area

A unique and precisely defined sea area, wholly contained within the coverage area, for which MSI is provided from a particular NAVTEX transmitter. It is normally defined by a line which takes full account of local propagation conditions and the character and volume of information and maritime traffic patterns in the region.

2 Governments desiring to provide a NAVTEX service should use the following criteria for calculating the coverage area of the NAVTEX transmitter they intend to install, in order to:

- determine the most appropriate location for NAVTEX stations having regard to existing or planned stations;

- avoid interference with existing or planned NAVTEX stations;

- establish a service area for promulgation to seafarers.

3 The ground wave coverage may be determined for each coast station by reference to CCIR Recommendation 368 and CCIR Report 322 for the performance of a system under the following conditions:

Frequency	-	518 kHz
Bandwidth	-	500 Hz
Propagation	-	ground wave
Time of day	-	1/
Season	-	1/
Transmitter power	-	2/
Antenna efficiency	-	2/
RF S/N in 500 Hz band width	-	8 dB 3/
Percentage of time	-	90

4 Full coverage of NAVTEX service area should be verified by field strength measurements.

1/ Administrations should determine time periods in accordance with NAVTEX time transmission table (NAVTEX Manual, Figure 3) and seasons appropriate to their geographic area based on prevailing noise level.

2/ The range of a NAVTEX transmitter depends on the transmitted power and local propagation conditions. The actual range achieved should be adjusted to the minimum required for adequate reception in the NAVTEX area served, taking into account the needs of ships approaching from other areas. Experience has indicated that the required range of 250 to 400 nm can generally be attained by transmitted power in the range between 100 and 1,000 W during daylight with a 60% reduction at night.

3/ Bit error rate 1 x 10^{-2}."

***

ANNEX 5

DRAFT ASSEMBLY RESOLUTION

RECOMMENDATION ON CARRIAGE OF INMARSAT ENHANCED GROUP CALL SAFETYNET RECEIVERS UNDER THE GMDSS

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

RECALLING also that carriage of INMARSAT SafetyNET receive facilities is required under regulation IV/7.1.5 of the 1988 Amendments to the 1974 SOLAS Convention concerning Radiocommunications for the Global Maritime Distress and Safety System,

RECOGNIZING that performance standards for such equipment are prescribed in resolution A.664(16),

NOTING that [Draft] Assembly resolution A[....](17) on Radio Maintenance Guidelines for the GMDSS does not require duplication of the enhanced group call receive facility in ships opting for equipment duplication,

NOTING ALSO that resolution A.664(16) allows such equipment to be combined with an INMARSAT-C or INMARSAT-A ship earth station (SES), or other equipment,

NOTING FURTHER that such equipment when combined with another SES may miss important maritime safety information if that SES is left tuned to an INMARSAT ocean region other than the one over which applicable maritime safety information is broadcast,

RECOMMENDS that, in order to ensure reception of maritime safety information broadcasts via the International SafetyNET service,

1. Maritime safety information providers make unscheduled SafetyNET broadcasts of distress alerts and urgent warnings through all INMARSAT Ocean Region satellites covering their area of responsibility;

2. Maritime safety information providers make routine SafetyNET broadcasts over at least a single nominated satellite in accordance with a pre-arranged schedule co-ordinated by the Organization;

3. Administrations ensure that up-to-date publications providing information on MSI broadcasts are included among the nautical publications required to be carried on board ships, in accordance with SOLAS regulation V/20; and

4. Administrations encourage ships to carry an INMARSAT EGC receive facility, with an omni-directional antenna, dedicated to receipt of maritime safety information via SafetyNET.

***

ANNEX 6

IMO RECOMMENDATIONS TO ADMINISTRATIONS CONCERNING ISSUES TO BE ADDRESSED BY THE WORLD ADMINISTRATIVE RADIO CONFERENCE FOR DEALING WITH FREQUENCY ALLOCATIONS IN CERTAIN PARTS OF THE SPECTRUM (WARC-92)

1 The Sub-Committee on Radiocommunications, on behalf of the International Maritime Organization (IMO), recommends that the following be considered by WARC-1992, Spain, under the items of the agenda (document 7042-E (CA45-136)) listed below.

2 WARC - Agenda item 2.2.2 - the possible extension of the frequency spectrum allocated exclusively to HF broadcasting, as indicated in Recommendation No.511 (HFBC-87).

Recommendations

Should the WARC-1992 conclude for new, exclusive HF broadcast allocations, it is believed that the expansion should not be at the expense of the maritime mobile service which has seen its own growth and which has important priorities, including safety of life and property considerations which should not be diminished. It is noted that maritime mobile operations also occur in the designated fixed and mobile allocations.

The use of reduced-carrier single-sideband (RCSSB) emissions in accordance with technical standards of Appendix 45 to the Radio Regulations when establishing new broadcast allocations is recommended to improve spectrum efficiency.

3 WARC - Agenda item 2.2.4 - the consideration of an allocation of frequency bands to the mobile and mobile-satellite services and associated feeder-lines.

Recommendations

IMO agrees with the requirements expressed by CCIR JIWP-WARC-92 section 8.1.3.1.5 below:

"Maritime mobile-satellite service (MMSS) requirements

Estimates of the spectrum requirements of the MMSS for the year 2010 are based on an extrapolation of extensive operational data on the market for maritime telecommunication services.

The total MMSS bandwidth requirements are expected to amount to around 67 MHz (for each direction of transmission) as a likely value, with a minimum requirement estimated at 28 MHz. Taking into account an expected regional frequency re-use factor of 1.7, an MMSS likely spectrum requirement of 40 MHz, with minimum value of 17 MHz, results.

The foregoing forecasts are based on the requirements of the Atlantic Ocean Region (AOR), because it is considered that the requirements of this region will be greater than those of the Indian and Pacific Ocean Regions. The combination of frequency re-use and lower bandwidth requirements will allow the requirements of the latter regions to fit within the same amount of spectrum as for the Atlantic Ocean Region."

3.1 IMO strongly opposes any proposal which would exclude from protection maritime distress and safety communications used in the GMDSS. The types of communication requiring protection should include all distress and safety categories recognized by the Radio Regulations.

3.2 IMO also recommends continued access to the bands 1,530-1,544 MHz and 1,626.5-1,645.5 MHz in accordance with Radio Regulations N3046, N3052, N3107 and N3248, as well as to the distress and safety bands 1,544-1,545 MHz and 1,645.5-1,646.5 MHz, by the maritime mobile satellite service, in order for the global maritime distress and safety system to function properly. If other services are to use these bands, maritime distress and safety communications must be afforded adequate, effective and immediate access and protection to ensure safety of life at sea. These distress and safety communications include, but are not limited to, transmissions of maritime safety information, distress calls and traffic, acknowledgement and relaying of distress calls, search and rescue co-ordination communications, ship movement service communications, radionavigation-related communications, navigational and meteorological warnings, meteorological observations, ship position reports, and medical emergencies (e.g. MEDICO/MEDIVAC).

4 WARC - Agenda item 2.3 - to consider the provisions of articles 55(Rev.) and 56(Rev.) of Radio Regulations which concern the mandatory carriage on board ships of personnel certificated for the on-board maintenance of shipborne radio and electronic equipment, as indicated in resolution No.PLEN/8.1/

Currently, the ITU Radio Regulations and the SOLAS Convention are not compatible with one another on the radio equipment maintenance issue. To avoid problems related to this incompatibility, it would be desirable for appropriate changes to be made to articles 55 and 56 so that the two treaties are aligned.

The results of 1988 Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 on the Global Maritime Distress and Safety System viz., SOLAS regulations IV/1, IV/12, IV/15 and IV/16 as well as the (draft) Assembly resolution on Maintenance Guidelines are attached as annexes 1 and 2.

5 WARC - Agenda item 2.7 - to develop new recommendations and resolutions in relation to the agenda of the Conference including meteorological aids service infrequency bands below 1,000 KHz and present allocations to space services above 20 KHz which were not placed on this agenda.

1/ Plenipotentiary Conference, Nice, 1989.

IMO notes that harmful interference is caused by wind profiler RADARS to the COSPAS-SARSAT system and that all Administrations should be urged to disallow the operation of such RADARS in the 402-406 MHz band until such time as CCIR completes its study and recommends accordingly.

IMO agrees with the conclusions of the CCIR JIWP-WARC-92 in section 15.1.3 shown below:

"15.1.3 Summary

It is concluded that:

- wind profiler meteorological RADARS cannot be accommodated in the 402-406 MHz band, due to their non-compatibility with the COSPAS-SARSAT distress alerting and locating system (required frequency separation 10-15 MHz) and that it would therefore be appropriate for WARC-92 to consider adopting a resolution to urge Administrations to avoid making assignments to wind profiler meteorological RADARS in the 402-406 MHz band; and

- it would be appropriate for WARC-92 to consider adopting a resolution calling for the next competent conference to consider frequency allocations for wind profiler meteorological RADARS and for the CCIR to continue its studies (Question 102/8) on this subject.

***

ANNEX 7

DRAFT REVISED WORK PROGRAMME OF THE SUB-COMMITTEE

Suggested deletions ////

Suggested additions underlined

		Target completion date
1	Maritime distress system:	
	.1 consequential work to the Conference on Maritime Safety:	
	- promoting the early introduction of NAVTEX, satellite EPIRBs and SES elements of the GMDSS	1993
	- GMDSS implementation planning	1992
	- ~~review of digital selective calling for all ships and HF narrow-band direct printing~~	~~1991~~
	- GMDSS operating guidance for shipmasters in distress situations*	1992
	- clarification of SOLAS GMDSS provisions	~~1992~~ Continuous
	.2 matters relating to ~~development of~~ the GMDSS Master Plan	Continuous
	.3 replies to questionnaire on casualties	Continuous
2	Promulgation of maritime safety information (MSI) by all means (in co-operation with ITU, IHO, WMO and INMARSAT), including co-ordination of operational and technical matters relating to the provision of maritime safety information services, particularly the INMARSAT SafetyNET MSI Manual	Continuous
3	Performance standards for shipborne radio equipment, including keeping under review the performance of GMDSS equipment, particularly:	Continuous
	.1 HF MSI equipment performance standards	1992

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* To be deleted unless LSR 23 recommends otherwise.

		Target completion date
.2	HF MSI system performance standards	1992
.3	charging arrangements for basic and duplicated GMDSS equipment	1992
.4	Criteria for use of shore-based INMARSAT-C/ ~~CES/performance/standards~~ INMARSAT-A facilities in the GMDSS	~~1992~~ 1993
4	ITU World Administrative Radio Conference matters (WARC-Mob 87 and WARC-92)	~~1991~~ 1993
5	CCIR Study Group 8 matters	Continuous
6	Satellite services (INMARSAT and COSPAS-SARSAT)	Continuous
7	International Code of Signals	Continuous
8	Exemptions from radio requirements	Continuous
9	Transmission of updating information for electronic navigational charts	1994
10	Review of radiocommication matters for ~~chapters/8/and/13/of~~ the Code of Safety for ~~Dynamically/Supported~~ High Speed Craft (work co-ordinated by the DE Sub-Committee)	1992
11	Review of existing ships' safety standards	Continuous
12	Registration system and ~~for~~ coding of 406 MHz EPIRBs (in co-operation with the LSR Sub-Committee)	~~1992~~ 1994
13	Development of safety standards for combined pusher tug-barges	1993
14	Amendment of ~~to~~ SOLAS chapter V regulations for compatibility with WMO provisions (if requested by the NAV Sub-Committee)	1993
15	Outcome of the ITU Voluntary Group of Experts (VGE) meetings	1994